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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/857,583	05/16/97	ABE	F WATK: 040E

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IM61/0510

EXAMINER

PREISCH, N

ART UNIT	PAPER NUMBER
1754	35

DATE MAILED: 05/13/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/857,585

Applicant(s)

Abe et al.

Examiner

Nadine Preisch

Group Art Unit

1764



☒ Responsive to communication(s) filed on Feb 18, 1998

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-6 and 11-14 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-6 and 11-14 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 112***

Claims 1-2, 4, 11 and 13 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation of "Si/Al ratio" is indefinite because the units of the ratio are not defined. For instance, is the ratio an atomic ratio, a weight/weight ratio, etc.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 and 11-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over abstract (113:102645 CA) in view of Eberly, Jr. et al.(3,591,488).

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In the pending application, applicants claim a composition comprising a high silica zeolite having a Si/Al ratio of not less than 40, and a heat resistant oxide, wherein the said heat resistant oxide is loaded with a noble metal. Applicants further claim an adsorbent comprising a honeycomb structure coated with a heat resistant oxide loaded with a noble metal.

Abstract (113:102645 CA) teaches a composition for automobile exhaust gas treatment comprising a zeolite and a heat resistant oxide in the form of alumina. The abstract also discloses that a noble metal in the form of Pt is loaded on alumina. For example, see abstract, lines 10-13. (113:102645 CA) also discloses that the support is honeycomb shaped. In addition, the support is coated with a heat resistant oxide in the form of alumina. For example, see abstract, lines 11-12.

Abstract (113:102645 CA) succeeds in teaching applicants' claimed zeolite component and heat resistant oxide component, other than zeolite, loaded with a noble metal in the form of alumina loaded with Pt. Furthermore, (113:102645 CA) also succeeds in teaching applicants' honeycomb shaped support.

Several differences are noted between the applied art of (113:102645 CA) and applicants' claimed invention. The abstract (113:102645 CA) is silent about the Si/Al ratio in the zeolite. Furthermore, (113:102645 CA) is silent about the specific structure of the honeycomb.

The reference of Eberly, Jr. et al.(3,591,488) is cited for the general teaching that it is known in the art that zeolites with that high silica/alumina ratios, such as 50, are desirable for high temperature conversions because they display increased thermal stability. For example, see column 2, lines 41-45 and column 5, lines 2-5.

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Since it is desirable for compositions to be thermally stable for exhaust gas treatment process due to the high temperatures involved, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select a zeolite with a high silica/alumina ratio in the exhaust gas composition disclosed by (113:102645 CA) because it is known in the art that zeolites with a high silica/alumina ratio display increased thermal stability.

Furthermore, applicants' limitations directed at the specific shape of the honeycomb composition are not considered to be patentable distinctions because such shapes are conventional in the art.

Therefore, applicants' claimed compositions fail to patentably distinguish over the applied prior art.

### ***Response to Arguments***

Applicants' arguments filed 2-18-98 have been fully considered but they are not persuasive.

Applicants argue 1) the Si/Al ratio is understood by those skilled in the art and does not need further clarification and 2) one of ordinary skill in the art would not have been motivated to combine the teachings of Eberly et al. with the reference of Toyota.

The examiner disagrees with applicants' argument 1) wherein the Si/Al ratio is understood by those skilled in the art because it is still unclear as to whether applicants are referring to a molar ratio or a weight ratio. Applicants are requested to amend the claims accordingly.

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The examiner disagrees with applicants' argument 2) wherein one of ordinary skill in the art would not have been motivated to modify the reference of Toyota with that of Eberly. Motivation for combining references results from the fact that the reference of Eberly, Jr. et al.(3,591,488) specifically discloses that "It has been found that for general catalytic or absorptive uses, the aluminosilicates having higher silica to alumina ratios will be preferred due to their higher stability....". For example, see column 2, lined 39-44. Since the composition of Toyota is used for the catalytic purpose of treating exhaust gas, one would have been motivated to select a high silica zeolite such as that claimed by applicants.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Preisch whose telephone number is (703) 305-2667. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

April 29, 1998  
N.P.

NP

*Walter D. Griffin*  
WALTER D. GRIFFIN  
PRIMARY EXAMINER  
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